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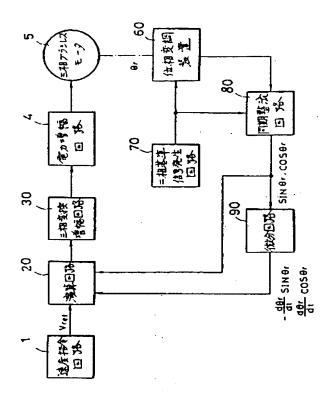
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TITLE

SPEED CONTROLLER FOR 3-PHASE

AC MOTOR



ABSTRACT:

PURPOSE: To obtain angular speed information of high quality by providing a signal generator for generating a 2-phase reference signal, and a phase modulator for generating a 2-phase modulation signal which includes the rotary angle information of 3-phase AC motor by the 2-phase reference signal.

CONSTITUTION: A phase modulator 60 detects a displacing angle θr from a reference position of a rotor, inputs a 2-phase reference signal having a phase angle ωt generated from a 2-phase reference signal generator 70, and outputs a phase modulation sinusoidal wave $\sin(\omega t - \theta r)$, $\cos(\omega t - \theta r)$. A synchronous rectifier 80 synchronously rectifies the phase modulation sinusoidal wave by a reference signal and outputs a demodulated 2-phase sinusoidal wave $\sin \theta r$, $\cos \theta r$. A differentiator 90 differentiates the 2-phase sinusoidal wave, and outputs a rotary angle signal. A calculator 20 inputs the 2-phase sinusoidal waves and the rotary angle signal and outputs a 2-phase torque command signal.

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